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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/485,377	04/24/2000	KLAUS SOMMERMEYER	6-1037-001	1845

803 7590 11/17/2003

STURM & FIX LLP
206 SIXTH AVENUE
SUITE 1213
DES MOINES, IA 50309-4076

EXAMINER

MAIER, LEIGH C

ART UNIT	PAPER NUMBER
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1623

DATE MAILED: 11/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/485,377

Applicant(s)

SOMMERMEYER ET AL.

Examiner

Leigh C. Maier

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- ☐ Interview Summary (PTO-413) Paper No(s). _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Status of the Claims

Claims 1-7, 10-12, 15, 16, and 20 have been amended. Claims 1-20 are pending. Any objection or rejection not expressly repeated has been withdrawn. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 U.S.C. § 112

Claims 6, 7, and 20 are again rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention, as set forth in the previous Office action.

Applicant's arguments filed June 14, 2002 have been fully considered but they are not persuasive.

Claims 6 and 20 were rejected because it was unclear what the percentage referred to in a 60-90% hydrolysis. Applicant states that "[t]he desired degradation can be defined as 100%," so 60-90% would be calculated on a desired end point molecular weight. It appears that this definition would require Applicant to draw distinctions between processes based on the artisan's state of mind. For example, two technicians start with starch having a molecular weight (MW) of 10 million D. The first technicians desired MW is 500 kD. The second technician's desired MW is 1 million D. Both implement the exact same process, resulting in a final MW of 500 kD. By Applicant's reasoning, the first technician accomplished 100% hydrolysis, but the second technician with an *identical process* accomplished *greater than* 100% hydrolysis. The metes and

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bounds of a process must be determined by what actually occurs rather than what any particular worker intends. The claims remain vague and indefinite.

Regarding claim 7: The original claim recited the phrase “preferably” rendering the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d). The substitution of “including” for “preferably” does not make the claim any more definite.

Claim Rejections - 35 U.S.C. § 103

Claims 1-20 are again rejected under 35 U.S.C. 103(a) as being unpatentable over SOMMERMEYER et al (US 5,218,108) in combination with KOMAI et al (US 3,446,664) as set forth in the previous Office action.

The invention is as set forth above. With regard to claims 3 and 14, the claims were previously rejected as being vague due to the use of the terms “rough hydrolysis” and “fine hydrolysis.” Applicant refers to page 5, last paragraph of the specification. From this the examiner surmises that this is a broadly recited process that requires some hydrolysis, and then some more hydrolysis.

Applicant’s arguments filed June 14, 2002 have been fully considered but they are not persuasive.

Applicant first notes that the claims have been limited to require a “solution” and “suspension” been canceled. KOMAI teaches that during the process the slurry is transformed into a homogeneous phase, or *solution*. After homogeneity is achieved, minimization of turbulence is preferred. See col 3, lines 68-72; col 4, lines 19-29; and col 5, lines 1-3.

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Applicant further contends that the present invention provides a method to produce a small MW distribution. The examiner does not find any limitation in the claim requiring any particular MW distribution. However, KOMAI teaches that uniform flow is important to attain hydrolyzates of comparatively analogous composition, that is, similar molecular weight.

Finally, Applicant objects to KOMAI because the reference is primarily drawn to saccharification, resulting in glucose. However, the very figures that Applicant cites clearly demonstrate that starch hydrolysis, reduction in molecular weight, happens over time and is dependent on temperature and acid concentration. See also, col 4, lines 62-68. As discussed in the previous Office action, these are result effective variables that would be optimized by one of ordinary skill to produce the desired molecular weight products taught by SOMMERMEYER.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Examiner's hours, phone & fax numbers


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leigh Maier whose telephone number is (703) 308-4525. The examiner can normally be reached on Tuesday, Wednesday, or Friday 7:00 to 3:30 (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. James O. Wilson (703) 308-4624, may be contacted. The fax number for Group 1600, Art Unit 1623 is (703) 308-4556 or 305-3592.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 1600 receptionist whose telephone number is (703) 308-1235.

Visit the U.S. PTO's site on the World Wide Web at <http://www.uspto.gov>. This site contains lots of valuable information including the latest PTO fees, downloadable forms, basic search capabilities and much more.

Leigh C. Maier
Patent Examiner
November 6, 2003



JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600